

What is claimed is:

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1. A wireless transmitting/receiving device comprising:  
a first device having transmitting means for modulating and  
transmitting an analog input signal; and a second device having  
receiving means for receiving a signal transmitted from said  
first device, demodulating said signal to obtain an analog input  
signal, and outputting said signal,

wherein said first device includes: signal processing  
means for applying signal processing to a digital signal  
obtained by digitizing said analog input signal; and

digital-to-analog converting means for converting an  
output digital signal from said signal processing means into an  
analog input signal,

emphasis means for increasing a gain of a high-frequency  
signal of said analog input signal converted by said digital-to-  
analog converting means or emphasis means for increasing a gain  
of a high-frequency signal of said digital signal in said signal  
processing means, and

said signal processing means includes: delay means for  
delaying said digital signal; and

signal compressing/expanding means for compressing or  
expanding a level of a delay output signal of said delay means  
according to a level of an input signal of said signal  
processing means.

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2. The transmitting/receiving device according to claim 1, wherein said signal compressing/expanding means includes: frequency characteristic control means for applying a frequency characteristic to said digital signal supplied to said signal processing means;

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absolute value detecting means for detecting an absolute value of a signal level of an output signal applied with said frequency characteristic by said frequency characteristic control means; and

level control means for changing said level of said output signal of said delay means according to said absolute value detected by said absolute value detecting means.

3. A wireless transmitting/receiving device comprising: a transmitting device having transmitting means for modulating and transmitting an analog audio input signal; and a receiving device having receiving means for receiving a signal transmitted from said transmitting device, demodulating said signal to obtain an analog audio input signal, and outputting said signal, wherein said transmitting device includes: signal processing means for applying signal processing to a digital audio signal obtained by digitizing said analog audio input signal; and

digital-to-analog converting means for converting an

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output digital audio signal from said signal processing means into an analog audio input signal,

emphasis means for increasing a gain of a high-frequency signal of said analog audio input signal converted by said digital-to-analog converting means or emphasis means for increasing a gain of a high-frequency signal of said digital signal in said signal processing means, and

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said signal processing means includes: delay means for delaying said digital audio signal; and

signal compressing/expanding means for compressing or expanding a level of a delay output signal of said delay means according to a level of an input signal of said signal processing means.

4. The transmitting/receiving device according to claim 3, wherein said signal compressing/expanding means includes: frequency characteristic control means for applying a frequency characteristic to said digital audio signal supplied to said signal processing means;

absolute value detecting means for detecting an absolute value of a signal level of a digital audio output signal applied with said frequency characteristic by said frequency characteristic control means; and

level control means for changing said level of said digital audio output signal of said delay means according to

said absolute value detected by said absolute value detecting means.

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5. A wireless transmitting/receiving device comprising:  
a first device having transmitting means for modulating and transmitting an analog input signal; and a second device having receiving means for receiving a signal transmitted from said first device, demodulating said signal to obtain an analog input signal, and outputting said signal,

wherein said first device includes: signal processing means for applying signal processing to a digital signal obtained by digitizing said analog input signal; and

digital-to-analog converting means for converting an output digital signal from said signal processing means into an analog input signal, and

said signal processing means includes: frequency band dividing means for dividing said digital signal into a plurality of frequency bands; and

signal compressing/expanding means for each band for compressing or expanding an output level separately for each band according to a level of said frequency band divided by said frequency band dividing means.

6. The transmitting/receiving device according to claim 5, wherein said frequency band dividing means includes at least:

low-pass filter means; and

high-pass filter means.

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7. The transmitting/receiving device according to claim 5, wherein said frequency band dividing means includes: fast Fourier transform means for fast-Fourier-transforming said digital signal; and

reverse fast Fourier transform means for reverse-fast-Fourier-transforming a signal obtained by compressing or expanding an output signal transformed into a frequency domain by said fast Fourier transform means.

8. A transmitting/receiving method for modulating and transmitting an analog input signal and for receiving said transmitted signal, demodulating said signal to obtain an analog signal, and outputting said signal, wherein a digital signal obtained by digitizing said analog input signal is delayed and a delay output is compressed or expanded according to a signal level and transmitted or received.

9. A wireless transmitting/receiving device comprising: a transmitting device having transmitting means for modulating and transmitting an analog audio input signal; and a receiving device having receiving means for receiving a signal transmitted from said transmitting device, demodulating said signal to

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obtain an analog audio input signal, and outputting said signal,

wherein said device includes: signal processing means for applying signal processing to a digital audio signal obtained by digitizing said analog audio input signal; and

digital-to-analog converting means for converting an output audio digital signal from said signal processing means into an analog audio input signal, and

said signal processing means includes: frequency band dividing means for dividing said digital audio signal into a plurality of frequency bands; and

signal compressing/expanding means for each band for compressing or expanding an audio output level separately for each band according to a level of said frequency band divided by said frequency band dividing means.

10. The transmitting/receiving device according to claim 9, wherein said frequency band dividing means includes at least: low-pass filter means; and high-pass filter means.

11. The transmitting/receiving device according to claim 9, wherein said frequency band dividing means includes: fast Fourier transform means for fast-Fourier-transforming said digital audio signal; and

reverse fast Fourier transform means for reverse-fast-

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Fourier-transforming a signal obtained by compressing or  
expanding an output signal transformed into a frequency domain  
by said fast Fourier transform means.

12. A transmitting/receiving method for modulating and  
transmitting an analog audio input signal and for receiving said  
transmitted signal, demodulating said signal to obtain an analog  
audio signal, and outputting said signal, wherein a digital  
audio signal obtained by digitizing said analog audio input  
signal is delayed and a delay output is compressed or expanded  
according to a signal level and transmitted or received.